Bruhat Bangalore Mahanagara Palike
Excecutive Engineer Yelahanka Division

Name of Work: Improvements to Roads and Drains at J P Colony layout and Kenchenahalli Prakruthi Badavane in ward no-02 of Yelahanka Sub division

					Estimate Cost Rs.			95.00 Lakhs	
Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
1	Removing & Refixing stone slabs of drains and pointing in C.M (1:3) (Page No 27., I.No.5.33 of KPWD S.R 2018-19).								
	Basic rate	105.00							
	6.00% AW	6.30							
	Sub total	**111.30**							
	JP Colony road	1	205.00	0.90		184.50			
	deduct 40% missing or damaged					73.80			
						110.70	**Sqm**	**111.30**	**12,320.91**
2	Earthwork in execavation for foundation of structure like culverts, retaining wall etc., as per drawing and technical specification, including setting out, construction of shoring and bracing, dressing of sides and bottom, back filling with approved material, disposal of balance earth as per specification, including cost of labour, HOM etc., complete. In all kinds of soil by manual means. (P.No.256, I.No.34.15.1 of PW,P&IWTD S.R 2018-19)								
	Basic rate	180.00							
	Area weightage 6%	10.80							
	Sub total	190.80							
	Lead 10 km	**82.60**							
	Total	**273.40**							
	Drain desilt								
	JP Colony road	1	205.00	0.50	0.45	46.13			
	For Drain								
	Prakruthi Layout								
	1st cross	1	60.00	1.00	0.90	54.00			
	2nd cross	2	110.00	1.00	1.00	220.00			
	3rd cross	1	133.00	1.00	1.00	133.00			
	5th cross	1	60.00	1.00	1.00	60.00			
						513.13	**Cum**	**273.40**	**140288.38**
3	KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC @ 220kgs, with 40mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days complete as per specifications, MORTH specifications No. 408, (P.No.13, I.No.4-1.2 of PW,P&IWTD S.R 2018-19)								
	Basic rate	5194.00							
	Area weightage 6%	311.64							
	Total	**5505.64**							
	For Drain								
	Prakruthi Layout								
	1st cross	1	60.00	0.90	0.15	8.10			
	2nd cross	2	110.00	0.90	0.15	29.70			
	3rd cross	1	133.00	0.90	0.15	17.96			
	5th cross	1	60.00	0.90	0.15	8.10			
						63.86	**Cum**	**5505.64**	**351562.64**

4	KSRB 4.2.2 : Providing and laying in position reinforced cement concrete of Design Mix M20 with OPC @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @0.69cum and fine aggregtes @ 0.460 cum, with super plasticisers @ 3 liters confirming to IS 9103-1999 reafirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedastals, retaining walls, return walls, walls (any thickness) including attached pilasters, columnspillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc., including cost of all materials, labour, HOM curing, complete but excluding cost of reinforcement as per specifications. Specification No. KBS 4.1, 4.6 (P.No.14, I.No.4.11 of PW, P&IWTD S.R 2018-19)								
	Basic rate	5659.00							
	Area weightage 6%	339.54							
	Total	**5998.54**							
	For Drain								
	Prakruthi Layout								
	Raft								
	1st cross	1	60.00	0.80	0.15	7.20			
	2nd cross	2	110.00	0.80	0.15	26.40			
	3rd cross	1	133.00	0.80	0.15	15.96			
	5th cross	1	60.00	0.80	0.15	7.20			
	Wall								
	1st cross	2	60.00	0.15	0.60	10.80			
	2nd cross	4	110.00	0.15	0.60	39.60			
	3rd cross	2	133.00	0.15	0.60	23.94			
	5th cross	2	60.00	0.15	0.60	10.80			
						141.90	**Cum**	**5998.54**	**851192.83**
5	KSRB 4-6.4 : Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses, plinth and string courses cost of all materials, labour complete as per specificaitons. Specification No. KBS 4.6.2 (I No-4.31,P No-15)								
	Basic rate	358.00							
	Area weightage 6%	21.48							
	Total	**379.48**							
	For Drain								
	Prakruthi Layout								
	1st cross	4	60.00		0.60	144.00			
	2nd cross	8	110.00		0.60	528.00			
	3rd cross	4	133.00		0.60	319.20			
	5th cross	4	60.00		0.60	144.00			
						1135.20	**Sqm**	**379.48**	**430785.70**
6	KSRRB - M2300-14: Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications.MORTH Specification No. 1600 & 2200 for TMT bars Fe 500. (P.No.239, I.No.29.29.2 of PW, P&IWTD S.R 2018-19)								
	Basic rate	69804.00							
	Area weightage 6%	4188.24							
	Total	**73992.24**							
	For Drain								
	65Kg/Cum of Concrete		141.90	65.00		9.22			
						9.22	**Tn**	**73992.24**	**682467.43**

7	Providing and fixing RCC Precast cover slab of 100mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, c[illegible]ng and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	Data rate	2337.00							
	For Drain								
	Prakruthi Layout								
	1st cross	1	60.00	0.75		45.00			
	2nd cross	2	110.00	0.75		165.00			
	3rd cross	1	133.00	0.75		99.75			
	5th cross	1	60.00	0.75		45.00			
	consider for missing frm item no. 01					73.80			
						428.55	**Sqm**	**2337.00**	**1001521.35**
8	KSRRB M300-14. **Excavation for roadwork** in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications. MORTH Specification No.301 (Page No143., I.No.19.14 of KPWD S.R 2018-19).								
	Basic rate	41.00							
	6.00% AW	2.46							
	Sub total	**43.46**							
	5 Km Lead	25.6							
	Total	**69.06**							
	JP Colony road	1	205.00	5.20	0.35	373.10			
	Harohalli 7th cross	1	370.00	6.00	0.35	777.00			
						1150.10	**Cum**	**69.06**	**79,425.91**
9	**Construction of granular sub-base Grading-V** as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications. Clause 401 of MORTH V Revision. (Page No 153., I.No.20.5 of KPWD S.R 2018-19).								
	Basic rate	1882.00							
	6.00% AW	112.92							
	Sub total	**1994.92**							
	JP Colony road	1	205.00	5.20	0.15	159.90			
	Harohalli 7th cross	1	370.00	6.00	0.15	333.00			
						492.90	**Cum**	**1994.92**	**983296.07**
10	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to **wet mix macadam** specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 (P.No.155 I.No.20.18) KPWD SR 2018-19								
	Basic rate	1888.00							
	6.00% AW	113.28							
	Sub total	**2001.28**							
	JP Colony road	1	205.00	5.20	0.225	239.85			
	Harohalli 7th cross	1	370.00	6.00	0.225	499.50			
						739.35	**Cum**	**2001.28**	**1479646.37**

11	KSRRB M500-6. Providing and applying **primer coat** with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg/ sqm using mechanical means complete as per specifications. Clause 502 of MORTH V revision (P.No.158/It No.21.6) KPWD SR 2018-19								
	Basic rate	28.00							
	6.00% AW	1.68							
	Sub total	**29.68**							
	For DBM								
	JP Colony road	1	205.00	5.20		1066.00			
	Harohalli 7th cross	1	370.00	6.00		2220.00			
						3286.00	**Sqm**	**29.68**	**97,528.48**
12	KSRRB M500-17. Providing and laying **dense graded bituminous macadam** using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 505 of MORTH V revision. - do - using 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen (P.No.160 It.No.21.17.6) KPWD SR 2018-19								
	Basic rate	6470.00							
	6.00% AW	388.2							
	Sub total	**6858.2**							
	JP Colony road	1	205.00	5.20	0.05	53.30			
	Harohalli 7th cross	1	370.00	6.00	0.05	111.00			
						164.30	**Cum**	**6858.20**	**1126802.26**
13	KSRRB 500-7. Providing and applying **tack coat** using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications. Clause 503 of MORTH V revision. (P.No.158 & I.No.21.7) KPWD SR 2018-19								
	Basic rate	12.00							
	6.00% AW	0.72							
	Sub total	**12.72**							
	For BC								
	JP Colony road	1	205.00	5.20		1066.00			
	Harohalli 7th cross	1	370.00	6.00		2220.00			
						3286.00	**Sqm**	**12.72**	**41,797.92**
14	KSRRB M500-19. Providing and laying **bituminous concrete** using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision. - do - using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 40 mm) with 5.4% VG-30 Bitumen (P.No.162 Item No.21.22.6) KPWD SR 2018-19								
	Basic rate	7464.00							
	6.00% AW	447.84							
	Sub total	**7911.84**							
	JP Colony road	1	205.00	5.20	0.04	42.64			
	Harohalli 7th cross	1	370.00	6.00	0.04	88.80			
						131.44	**Cum**	**7911.84**	**1039932.25**

15	KSRRB M800 13.**Road Marking with Hot Applied Thermoplastic Compound** with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 (P.No.182 & I.No.24.15) KPWD SR 2018-19								
	Basic rate	429.00							
	6.00% AW	25.74							
	Sub total	**454.74**							
	JP Colony road	2.5	205.00	0.10		51.25			
	Harohalli 7th cross	2.5	370.00	0.10		92.50			
						143.75	Sqm	580.71	83,477.06
								Total Construction Cost	8402045.55
								12% GST	1008245.47
								PMC Charges	89,500.00
								Sub Total	9499791.01
								Miscellaneous & Rounding off	208.99
								GRAND TOTAL	9500000.00

Certificate

1. The workspot was inspected and works is found to be necessary.
2. The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3. The rates adopted based on the PWD SR,Bangalore circle for year 2018-2019.and Data Rates

Assistant Engineer
Ward No-02
BBMP Bangalore

Asst. Executive Engineer,
Yelahanka Sub Division
BBMP Bangalore

Executive Engineer,
Yelahanka Division
BBMP Bangalore

ADMINISTRATIVELY SANCTIONED FOR Rs. 95 00 000/-

Rupees Ninety five lakhs only

Under Job NO 008-19-000049

Registered as EE ( ) ____

Subject to conditions contained in

enclosed memo EE ( ) No ____

Dt ____ Estimate Accepted

J.C(Y) AS/PR/NO/AS/16/18-19

dated ____ Rs ____

Joint Commissioner
(Yelahanka Zone)
BBMP Bengaluru-92

Technical Sanction
Accorded For Rs 95 Lakhs only
Head of A/C 83522
CER NO TS/189/18-19 Dt: 08.01.2019

TA — CE (YNK)

Kenchanahalli Rd

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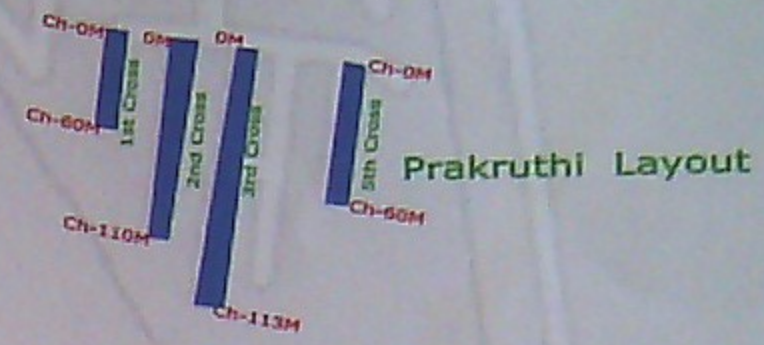
Overhead
Water Tank



Ramanshree
California Resort
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9

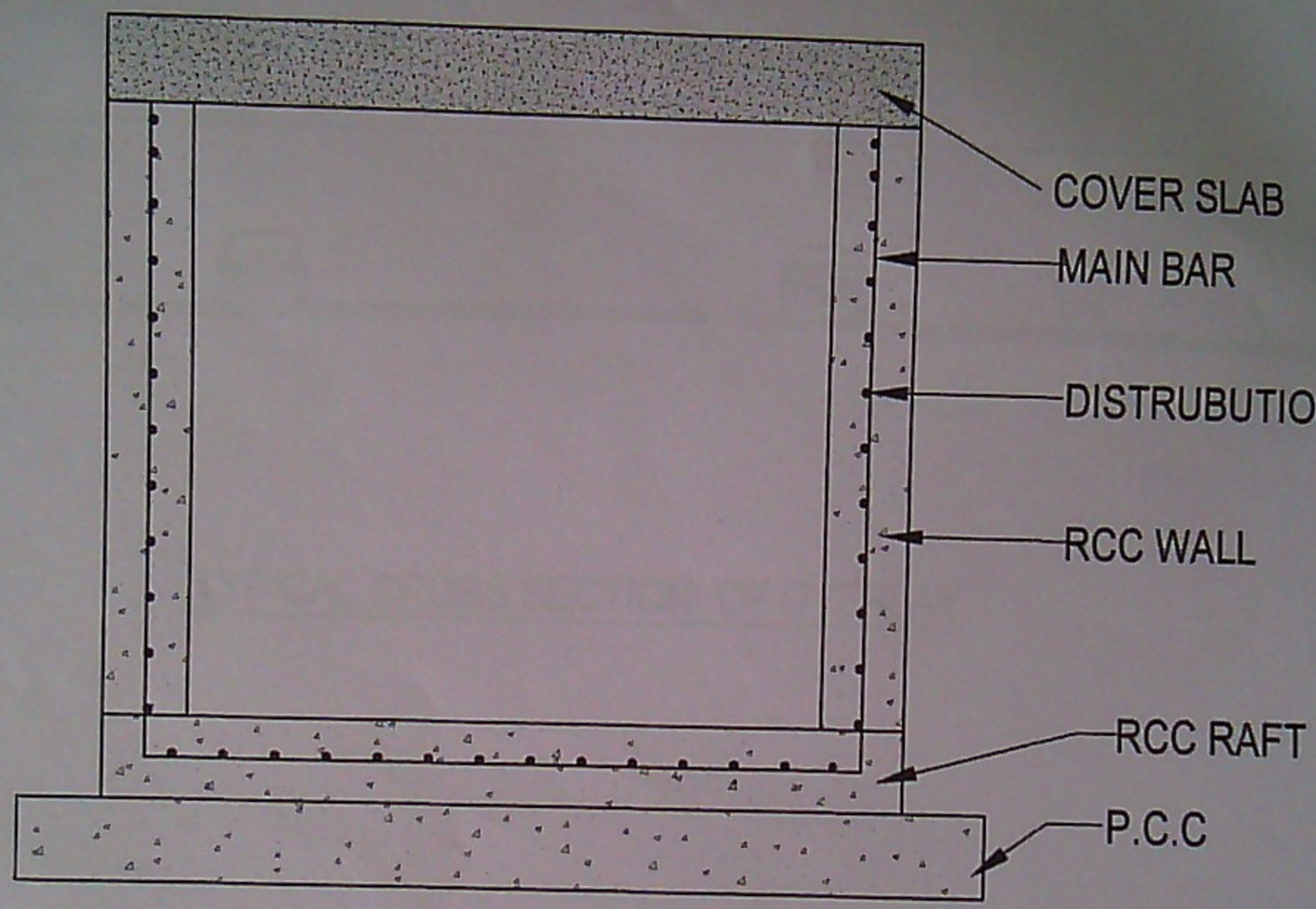
PUTTANAHALLI

DRAIN
CONCRETE ROAD
ASPHALT ROAD
FLAGGING COURSE

AE-02

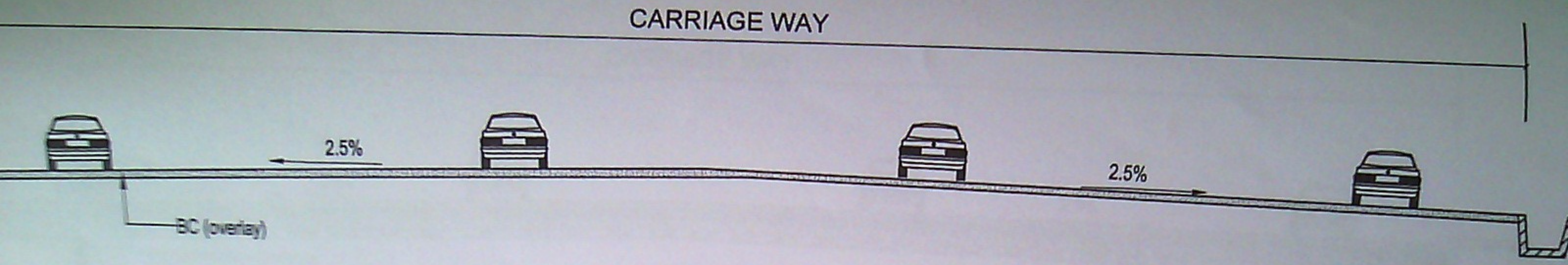
IENT: RUHAT BANGALORE AHANAGARA PALIKE	Assitante Engineer	Assitante Executive Engineer	Executive Engineer	Project Name: Improvements to roads and drains at J P Colony, and Kenchenahalli Prakruthi Badavane in wardno–2 of Yelahanka Sub Division Dwg no:	scale; N.T.S Date Rev; RO

NT: HAT BANGALORE HANAGARA PALIKE	Assitante Engineer	Assitante Executive Engineer	Executive Engineer	Project Name: Improvements to roads and drains at J P Colony and Kenchenahalli Prakruthi Badavane in wardno–2 of Yelahanka Sub Division Dwg no:
				scale; N.T.S Date Rev; R0



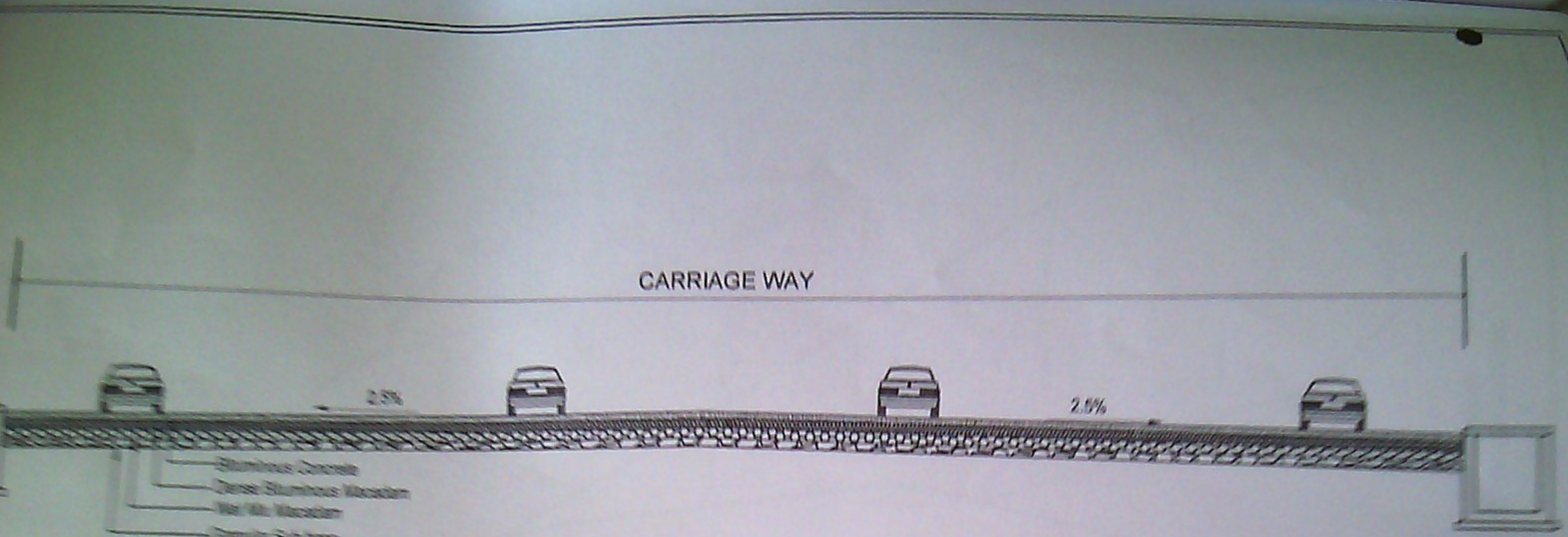
AE-02

PROPOSED TYPICAL CROSS SECTION OF RCC DRAIN



TYPICAL CROSS SECTION OF OVERLAY

AE-02



TYPICAL CROSS SECTION OF ASPHALT ROAD

BRUHAT BANGALORE MAHANAGAR PALIKE
WARD: 2- CHOWDESWARI WARD

150 - YELAHANKA AC

VILLAGE BOUNDARY
TANK
ISRO LAYOUT
VILLAGE BOUNDARY
NAGANAHALLI MAIN ROAD
HAROHALLI
VILLAGE BOUNDARY
SRI NIDHI LAYOUT
NAGANAHALLI NEW LAYOUT
KEB LAYOUT PHASE-I
CRPF QUARTERS
NEW LAYOUT
VILLAGE BOUNDARY
DODABALLAPUR ROAD
CRPF CAMPUS
BALAJI LAYOUT
KENCHENAHALLI
RAILWAY LINE
D.G STAFF QUARTERS
RAMAIAHTEE CALIFORNIA GARDEN LAYOUT
VINAYAKA LAYOUT
YALAHANKA KERE
PUTTANAHALLI KERE
PUTTANAHALLI
TANK LINK
CHOWDESWARI LAYOUT
WHEEL & AXLE PLANT
KAMAKSHIAMMA LAYOUT
MAIN RD
CROSS RD
KHB COLONY
PUTTENHALLI POND
CROSS RD
BAZZAR ROAD
YELAHANKA NEW TOWN
DODABALLAPURA RD
FM GOETZE PLANT
YESHWANTPURA ROAD
EAST COLONY
YELAHANKA SETELLITE TOWN

INDEX

PROPOSED WARD BOUNDARY
RIVER/ DRAIN
RAILWAY LINE